



Applications for Power Plants, Substations, and Transmission Lines

September 2002

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Applications for Power Plants, Substations, and Transmission Lines

September 2002

ALBERTA ENERGY AND UTILITIES BOARD

Guide 28: Applications for Power Plants, Substations, and Transmission Lines

September 2002

This edition of *Guide 28* replaces previous versions of *Guide 22: Guidelines Respecting an Application to Construct or Alter an Electric Transmission Line* and *Guide 28: Thermal Power Plant Applications to the ERCB*. Note that *Guide 22* no longer exists.

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Web site: <www.eub.gov.ab.ca>

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1 How to Use This Guide

1.1 A New Approach to Applications for Electric Power Plants, Substations, and Transmission Lines

This revised version of *Guide 28* replaces earlier editions of *Guide 22: Guidelines Respecting an Application to Construct or Alter an Electric Transmission Line* and *Guide 28: Thermal Power Plant Applications to the ERCB*. (*Guide 22* no longer exists.) This guide also replaces the first version of the EUB Application Form for Small Electric Generator (announced by *General Bulletin 2000-03*) with an updated version.

The new *Guide 28* presents the application requirements and the process to apply to the Alberta Energy and Utilities Board (EUB) for the necessary approvals for the construction and/or alteration and operation of power plants, substations, and transmission lines, pursuant to the Hydro and Electric Energy Act. The level of detail required may vary depending on the scope and complexity of your proposed development. Applicants are expected to know and understand requirements and file accurate and complete applications.

Note that if the project involves other nonelectric facilities, you may also be required to submit an application to the EUB for approval of these facilities. For example, you may need to file an application pursuant to the Pipelines Act if the project requires a new gas pipeline or pursuant to the Coal Conservation Act if the project requires extraction of coal. (Please refer to the appropriate EUB guidelines when preparing applications for nonelectric facilities.)

You may also be required to provide information to other agencies, such as Alberta Environment, the Transmission Administrator, the Power Pool of Alberta, municipal districts, and counties, and may need to obtain their approval.

1.2 When to File an Application

Anyone intending to construct, connect, operate, and/or alter electric facilities (i.e., power plants, substations, or transmission lines) needs to file an application with the EUB, pursuant to the Hydro and Electric Energy Act and according to this guideline, for the necessary approval of these facilities.

Note that in the following instances an application may not be required:

- If you are proposing alterations to existing electric facilities and you consider the alterations to be minor, you should contact the EUB and explain the nature of your proposal. The EUB will assess whether you need to prepare and file an application, whether your proposal may be processed using a Letter of Enquiry (pursuant to Section 11 of the Hydro and Electric Energy Regulations), or whether you may proceed without further EUB involvement.
- If you plan to generate electric energy solely for your own use, you should contact the EUB and explain the nature of your proposal. The EUB will assess whether an application is required or whether your proposal could be exempted pursuant to Section 13 of the Hydro and Electric Energy Act.

- If you plan to transmit electric energy over your own land and solely for your own use or if you plan to transmit electric energy within an industrial system that you own, you should contact the EUB and explain the nature of your proposal. The EUB will assess whether an application is required or whether your proposal could be exempted pursuant to Section 16 of the Hydro and Electric Energy Act.

1.3 What This Guide Contains

This guide includes

- a general registration form (Schedule 1) for all power plant, transmission line, and substation applications
- details on requirements for *all* power plant applications 1 megawatt (MW) or greater
- a short form (Schedule 2) to be used for applications for small power plants of less than 1 MW
- details on requirements for applications to construct or alter a substation or transmission line
- guidelines on public notification and involvement

This guide applies to applications for

- power plants, including construction of new power plants or alteration of existing power plants; for power plants with a total capacity of less than 1 megawatt (MW), applicants may use the short form (Schedule 2)
- electric transmission lines, including construction of new transmission lines and substations and/or alteration of existing transmission lines and substations

How to Get Copies

You may obtain copies of this guide on CD or on paper (for a nominal fee) from EUB Information Services (640 – 5 Avenue SW, Calgary AB T2P 3G4; telephone: 403-297-8190) or at no cost on the EUB Web site <www.eub.gov.ab.ca>.

1.4 Procedure for Reviewing Applications

Step 1: Application Registration

You must provide six paper copies of your application package, including Schedule 1, unless otherwise specified. Additional copies of the application may be required, depending on the complexity of the application. An electronic copy of the application may also be required. For data retention purposes, please provide Schedule 1 printed on one side only.

Submit the application to
 Alberta Energy and Utilities Board
 Utilities Branch
 640 – 5 Avenue SW
 Calgary AB T2P 3G4

If the application proceeds to a hearing or is otherwise complex, you may be asked to provide as many as 30 additional copies. See the EUB's *Rules of Practice* (available on the EUB Web site) for additional information on the hearing process.

Once an application is received, the EUB assigns it a unique application number and registers it. The current status of the application is then available on the EUB Web site under the Integrated Application Registry (IAR).

Step 2: Corporate Record Check

EUB approvals identify the holder of the approval as the party responsible and accountable for compliance with all regulations and the approval conditions. Therefore, all applicants are subject to a corporate check to verify acceptable performance records and other information in EUB files.

Applicants seeking formal approval must hold a valid company code issued by the EUB's Corporate Compliance Group. If you are a first-time applicant, you will be issued a business associate code by the Corporate Compliance Group. Once you have this code, you must indicate it on any further applications you file with the EUB. If you are on "refer" status due to an unresolved serious noncompliance problem, the EUB may ask additional questions, including questions related to corporate accountability, technical competency, and corporate commitment to compliance with EUB and other legislative requirements, as part of the EUB enforcement policy detailed in *Informational Letter (IL) 99-4: EUB Enforcement Process*.

Step 3: Incomplete Applications

The EUB no longer processes any application that contains major deficiencies. The application is closed and is returned to the applicant with an explanation. An example of a major deficiency is the omission of key information, such as neglecting to perform public notification or a noise impact assessment when applying to build a power plant in proximity to residences, or omissions of a need assessment when applying for transmission facilities.

If your application has minor deficiencies, the EUB provides you with an explanation and gives you a reasonable time to address the deficiencies. Failure to respond in this time frame results in the EUB returning your application with written notification of the reason for the rejection.

Step 4: Public Notification and Involvement Program

As explained in Section 6: Public Notification and Involvement Guidelines, when a public notification and involvement program is required, you must include documentation describing your notification and involvement program in your application. This must include information indicating that you have contacted all potentially directly and adversely affected parties, provided them with a fair opportunity to learn about your planned application, and given them the opportunity to submit their views to you and to the EUB.

1.5 Objections/Dispute Resolution

The EUB expects applicants to conscientiously address all concerns raised by potentially directly and adversely affected parties. Should disputes arise, the EUB expects the parties to discuss the issues and options for resolution.

If the parties cannot come to resolution, the EUB's Appropriate Dispute Resolution (ADR) Program (see *IL 2001-1: Appropriate Dispute Resolution [ADR] Program and Guidelines for Energy Industry Disputes*) has options for help in resolving issues, including negotiations, facilitation, mediation, and arbitration. EUB staff, if requested, can assist in explaining EUB rules and in facilitation.

If you conclude that further discussion is unlikely to resolve issues, you should inform the EUB, outlining the concerns and the steps you have taken to resolve problems, as well as including your recommended course of action. Note that outstanding objections may result in an EUB hearing. Should a hearing be called, both you and the potentially affected parties might be asked to file additional substantiating evidence.

1.6 Documented Decisions

EUB decisions made without a hearing on the types of applications covered in this guide are issued in writing and generally include a cover letter summarizing the EUB's decision. If a hearing is held, the EUB issues a decision report. EUB approvals, permits, and licences to construct and operate electric facilities are normally issued in conjunction with the EUB decision to approve an application and may contain conditions.

If a hearing is held, the EUB issues a decision report. Approvals, permits, and licences are normally issued subsequent to the EUB's issuance of a decision report. In some cases, the decision report requires the applicant to meet certain conditions before the approvals, permits, and licences are issued.

1.7 Change of Ownership

You must submit a formal application to amend an existing approval if a change to an existing approval results from a change in ownership (for example, a company sale or company name change due to restructuring).

1.8 Major Developments

If you are proposing a major development, such as a large coal-fired power plant or a high-voltage transmission line of significant length, the information requirements in this guide may not be sufficient to assess the full impact of your project. In this case, you should consult with the EUB and Alberta Environment (AENV) in the initial stages of preparing your application to determine the level of detail required.

2 Schedule 1 Form and Guide

General Registration Form for Electric Facility Applications

Guide 28 – Schedule 1 General Registration Form for Electric Facility Applications

1. Registration

Day _____ Month _____ Year _____

EUB USE ONLY

Registration Number _____ Registration Date: Day _____ Month _____ Year _____

Company Name _____ BA Code _____

Contact Person (N/A ☐) _____

Last Name

First Name

Signature

Telephone (_____) Fax (_____)

E-Mail Address _____

Mailing Address _____

Consultant (N/A ☐) _____

Company Name

Consultant Contact Person _____

Last Name

First Name

Signature

Telephone (_____) Fax (_____)

E-Mail Address _____

Mailing Address _____

2. Project Overview

1. Identify what this application is for:

Transmission Line ☐ Substation ☐ Power Plant ☐ Interconnection ☐

2. Brief description: _____

3. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

_____4. Have you conducted the public notification and involvement program as detailed in the Public Notification and Involvement Guidelines (*Guide 28*, Section 6)? Yes ☐ No ☐5. Are there outstanding public or industry objections and/or concerns? Yes ☐ No ☐6. Have you completed a noise impact assessment, as required by *Interim Directive (ID) 99-8: Noise Control Directive* (for power plant applications only)? Yes ☐ No ☐ N/A ☐7. Have you completed a need assessment (for transmission lines and/or substations only)? Yes ☐ No ☐ N/A ☐**Note:** For applications for power plants and (or) interconnection, proceed to Section 3 of *Guide 28*. For applications to construct or alter a substation or transmission line, proceed to Section 5 of *Guide 28*.

Please file six (6) copies of this application package, including this Schedule 1 on each copy.

Submit applications to: Alberta Energy and Utilities Board, Utilities Branch, 640 – 5 Avenue SW, Calgary AB T2P 3G4

2 Schedule 1—Guide

When to Use Schedule 1

Schedule 1: General Registration Form is required for all application types covered in *Guide 28*, except for those for a small power plant (less than 1 MW). If you are applying for a small power plant, you may use Schedule 2 (Short Form) (proceed to Section 4).

Schedule 1 provides registration information, along with the identification of application type and key items required for electric power plant, transmission line, and substation applications.

You may include applications for more than one facility in one package using a single Schedule 1.

Part 1: Registration

Date	Enter the date on which you will file this application with the EUB.
Company Name	Enter your company name and BA code. As applicant, your company is legally responsible for the accuracy and completeness of this application and all supporting technical information. Upon approval, the owner/operator becomes the approval holder and is subject to the conditions that may be set out in an EUB order.
Contact Person	Enter the name of the person responsible for preparing this application. The EUB will direct correspondence and questions about the application to this person. If the application is submitted by a consultant on your behalf, check N/A. The contact person must sign as indicated. Any EUB approval, order, or letter of approval resulting from this application will be issued in the applicant's name and mailed to the contact person, unless the application is prepared by a consultant (see below).
Telephone/Fax	Enter the telephone number and facsimile number of the contact person, including area code.
E-mail Address	Enter the e-mail address of the contact person, if available.
Mailing Address	Enter the company's complete mailing address, including postal code.
Consultant	Enter the company name of the consultant submitting an application on the company's behalf. If a consultant is not being used, check N/A.

A consultant is a person or corporation retained by the applicant to prepare the application. The EUB considers the applicant to be legally responsible for the accuracy and completeness of the application even when it is submitted on the applicant's behalf by the consultant.

Consultant Contact Person

Enter the name of the person at the consulting company responsible for preparing this application. The EUB will direct correspondence and questions about the application to this person.

The consultant's contact person must sign as indicated.

Any EUB approval, order, or letter of approval resulting from this application will be issued in the applicant's name and mailed to the consultant's contact person.

This person must ensure that the applicant receives a copy of the approval, order, or letter of approval.

Telephone/Fax

Enter the business telephone number and facsimile number of the consultant's contact person, including area code.

E-mail Address

Enter the e-mail address of the contact person, if available.

Mailing Address

Enter the consultant's complete mailing address, including postal code.

Part 2: Project Overview

- | | |
|---|--|
| 1. Identify what this application is for. | Check the appropriate box(es) (transmission line, substation, power plant, and/or interconnection). |
| 2. Brief description | Describe what this application is for and the reasons for your application (for example, a transmission line to provide electric supply for an industrial complex). |
| 3. Provide the name(s) of all companies having ownership in the project, details of their incorporation, and the share in the project that each would have. | Provide details of all companies having ownership in the project. Include the incorporation details for each company and its percentage share of the project. |
| 4. Have you conducted the public notification and involvement program? | <p>Check Yes if you have. Refer to Section 6: Public Notification and Involvement Guidelines. Include documentation describing your notification and involvement program with this application.</p> <p>Check No if you have not conducted this program and provide an explanation as to why not in your application.</p> |

You must also consider whether unique situations exist that warrant additional notice. When the EUB reviews your application, it will also assess any unusual aspects that might increase notification requirements. The EUB also may serve formal notification if the project scope or location requires additional steps to ensure compliance with Section 26 of the Energy Resources Conservation Act.

5. Are there outstanding public or industry objections and/or concerns?

Check Yes if there are outstanding objections and/or concerns regarding the proposed project.

Check No if there are no outstanding objections and/or concerns regarding the proposed project.

6. Have you completed a noise impact assessment, as per *Interim Directive (ID) 99-8* (for power plants only)?

Check Yes if you are applying for a power plant and have completed a noise impact assessment, as required by *ID 99-8: Noise Control Directive*. Include the assessment with your application.

Check No if you are applying for a power plant and have not completed a noise impact assessment. Include an explanation as to why not in your application.

Check N/A if you are not applying for a power plant.

7. Have you completed a need assessment (for transmission lines and substations only)?

Check Yes if you are applying for a transmission line or a substation and have completed a need assessment, as detailed in Section 5. Include the assessment with your application.

Check No if you are applying for a transmission line or a substation and have not completed a need assessment. Include an explanation as to why not in your application.

Check N/A if you are not applying for a transmission line or a substation.

To Section 3

If you are applying for an electric power plant with or without interconnection or for the interconnection of a power plant already approved or applied for, proceed to Section 3.

To Section 5

If you are applying for a transmission line or substation, proceed to Section 5.

Submitting the Application

Submit six (6) copies of this application package, including Schedule 1, to

Alberta Energy and Utilities Board
Utilities Branch
640 - 5 Avenue SW
Calgary AB T2P 3G4

3 Requirements for All Power Plant Applications 1 Megawatt (MW) or Greater

If you are applying for construction, operation, or alteration of a power plant 1 MW or greater, you must include the following background and technical information. Be sure to attach a covering *Guide 28* Schedule 1 with your application. If your application is for a small electric power plant (less than 1 MW), go directly to Schedule 2: Short Form (Section 4).

3.1 General Information

3.1.1 Legislation

- 1) Identify the sections of the Hydro and Electric Energy Act (Revised Statutes of Alberta 2000) under which the application is made.
- 2) Identify any other acts (e.g., Electric Utilities Act, Environmental Protection and Enhancement Act) that may affect your project.
- 3) State the approvals that you are applying for.
- 4) Provide a list of existing approvals for facilities directly affected by this project, if any.
- 5) Confirm that you have made an application for approval to local jurisdictions (e.g., municipal districts, counties).
- 6) Provide a list of companies that may be affected by your project, confirm that these companies have no concerns regarding your application, and indicate which other agreements are necessary to carry out your project.
- 7) Provide a copy of your approvals from NAV CANADA and Transport Canada if you are submitting an application for a wind power plant.
- 8) Confirm that you have made application to Alberta Environment (AENV), if applicable, and list all other government departments and agencies from whom approval is required.
- 9) Confirm that consultation has taken place with Alberta Community Development. If a historical and/or archaeological impact assessment is required, submit a summary describing any historical or archaeological sites and parks affected by your proposal.
- 10) Provide the Power Pool-assigned asset identification code, if available.

3.1.2 Project Description

- 11) Provide the legal description of the proposed power plant site (Legal Subdivision [LSD], Section, Township, Range, Meridian) and connection point, if applicable.
- 12) For wind power plant applications, provide the longitude and latitude coordinates (within 50 metres [m]) for each structure supporting a wind-powered generator.

- 13) Describe the project site and the regional setting of the development.
- 14) Describe the number of generating units and the total capacity (kilovoltampere [kVA], megavoltampere [MVA]) for the project.
- 15) Give a general overview of environmental impacts (such as noise, visual, emissions, land disturbances, surface water).

3.1.3 Public Notification and Involvement Program

- 16) Describe the public notification and involvement program. (See Section 6: Public Notification and Involvement Guidelines.)
- 17) List all owners, occupants, and residents on lands within the project area, as well as other interested parties, that you contacted as part of your public notification and involvement program. (See Section 6: Public Notification and Involvement Guidelines).
- 18) Supply a mailing list of those parties mentioned in (17) above, complete with two sets of mailing labels.
- 19) Identify any parties who expressed concerns about the project and the specifics of their concerns.
- 20) Summarize discussions held with potentially directly and adversely affected parties.
- 21) If potentially directly and adversely affected parties raised any concerns, describe how you dealt with or will deal with them.
- 22) For those potentially directly and adversely affected parties identified above, include a confirmation of resolution of the concerns, if applicable.

3.1.4 Land Use

- 23) Describe the existing land use.
- 24) Discuss potential siting and land-use issues.
- 25) Describe the power plant fencing and state if the fencing will comply with the standards outlined in Part 8.170 of the Oil and Gas Conservation Regulations.

3.2 Technical Information

3.2.1 General Operating Information

- 26) Provide a noise impact assessment, as per EUB Interim Directive (ID) 99-8: *Noise Control Directive*.
- 27) Provide details of your power generating equipment and associated facilities, such as make, model, and nominal capacity.

- 28) Present the estimated power plant heat rates, efficiency, and details of cooling system.
- 29) State the fuel requirements of the power plant, including type, source, method of handling, transportation, and environmental effects.
- 30) State the projected annual electric production.

3.2.2 Maps, Drawings, and Other Documents

- 31) Provide a legible plant site drawing showing all major equipment components.
- 32) Provide a legible map showing the power plant site boundaries and land ownership, as well as any residences and dwellings within 2000 m of the boundaries.
- 33) Provide a legible map of the project area suitable for use in a public notice.

3.2.3 Construction Schedule

- 34) Supply the expected in-service dates, and describe ramifications if the approval date cannot be met.

3.2.4 Environmental Information

- 35) Indicate the plant's emission rates in nanograms per joule (ng/J), as well as mass emissions in tonnes per year (t/y), of nitrogen oxides (NO_x), sulphur dioxide (SO₂), and particulate matter, and state whether the emissions will comply with the Alberta Source Emission Standards.
- 36) State whether the proposed plant will comply with the Alberta Ambient Air Quality Guidelines for ground-level concentrations of pollutants.
- 37) Provide the environmental impact assessment as an appendix to your application, if one has been conducted.

You must obtain approval from AENV for thermal power plant facilities greater than 1 MW in total capacity. An environmental impact assessment (EIA) is mandatory for thermal power plant facilities that use nongaseous fuel and are greater than 100 MW in total capacity and may be required for other power plant facilities regardless of total capacity. When an EIA is not mandatory, AENV will determine if it is necessary, based on the specific nature of the project. You should consult with the EUB and AENV in the initial stages of preparing your application to determine the level of detail required.

3.3 Additional Information

3.3.1 For Power Plants (without application for connection)

- 38) If the power plant is to be connected to a distribution system, provide a copy of your agreement with the local distribution company. The EUB expects this agreement to also reflect that the interest of current customers of the distribution company are

served, that provision for future customer load has been made, and that both parties (generator and wire owner) are satisfied with the arrangement and its implications.

39) If the power plant is to be connected at transmission voltage level (generally greater than 25 kV), provide

- local area load flow studies to show transmission system adequacy to support the new power plant;
- draft functional specifications as prepared by the Transmission Administrator (TA) for system access;
- cost estimate for the interconnection and the required system upgrades;
- proponent's contribution, if any, toward the capital cost of the interconnection; and
- amount of supply transmission service (STS) that you will contract for with the TA for the proposed generator.

3.3.2 For Power Plants (including application for connection at the distribution system)

40) Provide a copy of the agreement with the local distribution company, the legal LSD of the interconnection point, and an electric single-line diagram showing the interconnection point with the company. The EUB expects this agreement to also reflect that the interest of current customers of the distribution company are served, that provision for future customer load has been made, and that both parties (generator and wire owner) are satisfied with the arrangement and its implications.

3.3.3 For Power Plant Application (including application for connection at transmission voltage level) or Application for Connection Order at the Transmission Level for an Already Approved Power Plant

- 41) Provide local area load flow studies, including contingency analysis, with sufficient detail to demonstrate that the proposed interconnection would conform to planning criteria. Present the report for these studies with sufficient graphical outputs which should be labelled and indexed to provide clarity as to what was studied.
- 42) For power plants with total capacity of 70 MW or larger, provide dynamic studies to determine the impact of the new generation on the transient and dynamic stability of the Alberta Interconnected Electric System. These dynamic studies should include system response to close-in and worst-case three-phase faults with and without the new plant addition to show the relative system performance. Study results should include macro-system quantities, such as machines angles, major bus voltages, major line active and reactive power flows, and system frequency. Present the report for the studies with sufficient graphical outputs labelled and indexed to provide clarity as to what was studied. For power plants with total capacity over 10 but less than 70 MW, the EUB, in consultation with the TA, will assess the need for dynamic studies.
- 43) Provide short circuit levels at substations near the proposed power plant connection.
- 44) Provide final functional specifications as prepared by the TA.
- 45) Include a cost estimate for the connection and required system upgrades.

- 46) Explain proponent's contribution, if any, toward the capital cost of the interconnection.
- 47) Provide amount of supply transmission service (STS) that you would contract for with the TA for the proposed generator.

4 Schedule 2 Form and Guide

Application for a Small Power Plant

Guide 28 – Schedule 2 (Short Form)
Application for a Small Power Plant
Less than 1 MW

Pursuant to Sections 11 and 18 of the Hydro and Electric Energy Act

1. Registration

Day _____ Month _____ Year _____ Power Pool-Assigned Asset ID Code: _____

EUB USE ONLY**Registration Day _____ Month _____ Year _____**

Company Name _____ Company Contact Person _____

BA Code _____

Company Address _____

Telephone (____) _____ Fax (____) _____

Power Plant Operator/Owner (if different from applicant) _____

Address _____

Operator Contact Person _____

Telephone (____) _____ Fax (____) _____

2. Project Description

1. Plant description _____

2. Legal description of proposed plant site (and coordinates for each wind generating unit, if applicable):

3. Name plate capacity _____ kW 4. Number of units _____

5. Type of generator _____ 6. Type of fuel _____

7. Projected annual electric production _____ kWh 8. Expected plant-in-service date _____

9. Utility company to be connected to _____ 10. Agreement from utility company for connection: Yes ☐ No ☐

If Yes, the legal description of the connection point is _____

If No, state how you will achieve connection to the Alberta Electric System _____

11. Voltage level of connection _____

12. Is the energy produced to be used solely by the power plant owner? Yes ☐ No ☐

13. If the power plant owner does not use all the energy produced, that not used will be sold to

Alberta Power Pool ☐ Other Customers ☐14. Will the plant meet the Alberta Ambient Air Quality Guidelines (thermal plants only)? Yes ☐ No ☐

(continued)

15. Supporting documents:

- 1) Plant site plot plan and electric single-line diagram Yes ☐
- 2) Noise impact assessment, as per EUB *Interim Directive (ID) 99-8* Yes ☐ No ☐
- 3) Statement that applicant has conducted the public notification and involvement program as detailed in the Public Notification and Involvement Guidelines (*Guide 28*, Section 6) and that there are no public objections. Yes ☐ No ☐
- 4) Confirmation that applicant has submitted an application for a development permit from the appropriate municipal district or county and that applicant has submitted an application for approval from NAV CANADA and Transport Canada if the application is for the approval of a wind power plant. Yes ☐ No ☐
- 5) Confirmation that the proposed plant will comply with Fencing Standards as described in Part 8.170 of the Oil and Gas Conservation Regulations. Yes ☐ No ☐

Note: Please file six (6) copies of this application package, including this Schedule 2 (Short Form).

Signature: _____

Date: _____

Submit applications to:

Alberta Energy and Utilities Board
Utilities Branch
640 – 5 Avenue SW
Calgary AB T2P 3G4

4 Schedule 2 (Short Form): Application for a Small Power Plant—Guide

When to Use Schedule 2

If you are applying for a small power plant (less than 1 MW), you may use Schedule 2 (Short Form). For all other applications for power plants and transmission lines or substations, you must use Schedule 1.

Part 1: Registration

Date	Enter the date on which you will file this application with the EUB.
Power Pool-Assigned ID Code	Enter the asset identification code (ID) assigned by the Power Pool, if available.
Company Name	Enter your company name and BA code. As the applicant, your company is legally responsible for the accuracy and completeness of this application and all supporting technical information. Upon approval, the company becomes the approval holder, is subject to the conditions set out in an EUB order, and bears the responsibility for implementation, operations, and compliance.
Company Contact Person	Enter the name of the person authorized by your company to be responsible for this application and to act on your company's behalf. The EUB will consider the action and decisions of this individual to represent the actions and decisions of your company. Any EUB approval, permit, or order resulting from this application will be issued in the company's name and sent to the contact person. This person must ensure that the applicant receives a copy of the approval, order, or letter of approval.
Company Address	Enter the company's complete mailing address, including postal code.
Telephone/Fax	Enter the business telephone number and facsimile number of the contact person, including area code.
Power Plant Operator/Owner (if different from applicant)	Enter the name of the operator or owner of the power plant if different from the applicant.
Address	Enter the address of the power plant operator or owner, including postal code.
Operator Contact Person	Enter the name of the person and company responsible for preparing this power plant application. The EUB will direct

correspondence and questions about the application to this person.

Any EUB approval, order, or letter of approval resulting from this application will be issued in the applicant's name and mailed to the contact person.

This person must ensure that the applicant receives a copy of the approval, order, or letter of approval.

Telephone/Fax

Enter the business telephone number and facsimile number of the contact person, including area code.

Part 2: Project Description

- | | |
|--|---|
| 1. Plant description | Explain the type of power plant you are applying for (e.g., wind turbine, hydro plant, gas plant). |
| 2. Legal description of proposed plant site | Enter the legal description of the proposed power plant site. For wind power applications, provide the longitude and latitude coordinates (within 50 m) for each structure supporting a wind-powered generator. |
| 3. Name plate capacity | Enter the power plant capacity in kilowatts (kW). |
| 4. Number of units | Enter the number of individual generating units that make up the total power plant capacity. |
| 5. Type of generator | State the type of generator you are proposing (e.g., induction, synchronous, fuel cell). |
| 6. Type of fuel | State the type of fuel used to supply the power plant. |
| 7. Projected annual electric production | Enter the projected amount of electricity you expect to produce annually in kilowatt-hours (kWh). |
| 8. Expected plant-in-service date | Enter the date you expect the plant to be in service. |
| 9. Utility company to be connected to | Enter the name of the utility company that your power plant will be connected to. |
| 10. Agreement from the utility company for connection | <p>Check Yes if you have a connection agreement with the utility you will be connected to.</p> <ul style="list-style-type: none">• If Yes, enter the legal description of the connection point and attach written confirmation from the company.• If No, state how you will achieve connection to the Alberta Electric System. |
| 11. Voltage level of connection | Enter the voltage level at the interconnection point. |

- | | |
|---|---|
| 12. Is the energy produced to be used solely by the power plant owner? | Check the appropriate box. (No means that all or some of the energy produced will be supplied to the Alberta Electric System.) |
| 13. If the power plant owner does not use all the energy produced | If the power plant owner does not use all the energy produced, check the appropriate box to indicate whether the energy not so used will be sold to the Alberta Power Pool or to other customers. |
| 14. Will the plant meet the Alberta Ambient Air Quality Guidelines (thermal plants only)? | Check Yes if dispersion modelling predicts that the Alberta Ambient Air Quality Guidelines will be met. Otherwise, check No. |
| 15. Supporting documents | <p>Check Yes next to each of the following required documents that you have attached to this application:</p> <ol style="list-style-type: none"> 1) Plant site plot plan and electric single-line diagram 2) Noise impact assessment, as per EUB <i>Interim Directive (ID) 99-8</i> 3) Statement that you have conducted the public notification and involvement program as detailed in the Public Notification and Involvement Guidelines (Section 6) and that there are no public objections and/or concerns. 4) Confirmation that you have submitted an application for a development permit from the appropriate municipal district or county and that you have submitted an application for approval from NAV CANADA and Transport Canada if your application is for the approval of a wind power plant. 5) Confirmation that your proposed plant will comply with the Fencing Standards, as described in Part 8.170 of the Oil and Gas Conservation Regulations. |

If you check No, provide an explanation as to why the supporting document is not included.

Signature

Be sure to sign and date this form upon completion.

Submitting the Application

Submit six (6) copies of this application package, including Schedule 2 (Short Form), to
 Alberta Energy and Utilities Board
 Utilities Branch
 540 - 5 Avenue SW
 Calgary AB T2P 3G4

5 Requirements for Applications to Construct or Alter a Substation or Transmission Line

If you are applying to construct or alter a substation or transmission line, you must include the following background and technical information. Be sure to attach a covering *Guide 28* Schedule 1 with your application.

5.1 General Information

5.1.1 Legislation

- 1) Identify the sections of the Hydro and Electric Energy Act (Revised Statutes of Alberta 2000) under which the application is made.
- 2) Identify any other acts (e.g., Electric Utilities Act, Environmental Protection and Enhancement Act) that may affect the proposed project.
- 3) State the approvals that you are applying for.
- 4) Where existing facilities are being altered, state the existing Board orders (i.e., approvals, permits, and licences) for each facility.
- 5) Confirm that you have made an application for approval to local jurisdictions (e.g., municipal districts, counties).
- 6) Provide a list of companies that may be affected by your project, confirm that these companies have no concerns regarding your application, and indicate which other agreements are necessary to carry out your project.

5.1.2 Project Description and Need Assessment

- 7) Provide a description of the proposed project.
- 8) Provide a copy of the TA's endorsement for the project.
- 9) Provide a copy of the need assessment document provided by the TA. The document should include the following information:
 - i) load forecast for the area to be served by the proposed facilities and the principal assumptions of the load forecast;
 - ii) capabilities of existing facilities to meet present and future electric system based on the current transmission planning criteria;
 - iii) capabilities of the transmission system with the proposed development factored in to meet the forecast electric system requirements, based on current transmission planning criteria;
 - iv) alternative system developments that have been evaluated; and
 - v) loadflow diagrams to illustrate system performance with and without the proposed development or the alternatives.
- 10) Give the dates by which both the approval and the proposed facilities are required; state the ramifications if they are not available at that time.

5.1.3 Alternative Solutions

- 11) Describe any transmission line routing alternatives to the proposal and compare the relative impacts (environmental, social, and economic) of these alternatives with the proposal.

5.1.4 Public Notification and Involvement Program

- 12) Describe the public notification and involvement programs that you have conducted. (See Section 6: Public Notification and Involvement Guidelines.)
- 13) List all owners, occupants, and residents on lands within the project area, as well as other interested parties, that you contacted as part of your public notification and involvement program. (See Section 6: Public Notification and Involvement Guidelines).
- 14) Supply a mailing list of those in (13) above, complete with two sets of mailing labels.
- 15) Identify any parties who expressed concerns about the project and the specifics of their concerns.
- 16) Summarize discussions held with potentially directly and adversely affected parties.
- 17) If potentially directly and adversely affected parties raised any concerns, describe how you dealt with or will deal with them.
- 18) For those potentially directly and adversely affected parties identified above, include a confirmation of resolution of the concerns, if applicable.

5.2 Technical Information

5.2.1 General Operating Information

- 19) Describe the design and operating voltage of the transmission line and/or substations.
- 20) Describe the capacity of the transmission line for the spectrum of expected operating conditions and the expected transmission line losses.
- 21) State the size and type of conductors and the basis for conductor selection.
- 22) Describe the proposed structure type, including height and spacing; if more than one type of structure is proposed, state where each type will be used.
- 23) State the right-of-way width and the basis for determining the width.
- 24) Describe all major substation equipment being applied for and list the final equipment complement in the substation.
- 25) Describe the switching and protection features of the proposed facilities.

- 26) Describe the electrical interaction of proposed lines with other facilities, such as pipelines, telephone, radio, and television transmission facilities, and surface structures.
- 27) Describe the changes to existing facilities that would be required to accommodate the proposed facilities.

5.2.2 Maps, Drawings, and Other Documents

- 28) Provide a legible map defining the study area and state the reasons for the chosen area.
- 29) Provide legible maps and drawings of the proposed facilities showing
 - the preferred transmission line route and any alternative routes;
 - right-of-way widths;
 - location of the transmission line on the right-of-way;
 - location of the transmission line relative to property lines; and
 - mile (kilometre) points along each transmission line route.
- 30) Provide legible maps and/or air photo mosaics upon which the proposed transmission line route or routes have been imposed and showing the residences, landowner names, and major land-use and resource features (e.g., vegetation, topography, soil type, existing land use, existing rights-of-way, existing or potential archaeological sites, and superficial and mineable resources).
- 31) Provide a legible map of the project area suitable for use in a public notice.
- 32) Provide an electric single-line diagram or switching map showing new facilities in place in the system. In the case of a substation, provide an electric single-line diagram and a substation layout, including major items of equipment and the fenced boundaries of the station.

5.2.3 Construction Schedule

- 33) Discuss the construction schedule, equipment and method of construction, and method of eventual right-of-way maintenance.

5.2.4 Environmental Information

Approval from Alberta Environment (AENV) may be required. You should contact AENV directly to ascertain if such is the case. All applications must confirm your intent to comply with AENV's *Guide for Transmission Lines*, pursuant to the Environmental Protection and Enhancement Act and Regulations.

Each application must include environmental information, with the level of detail appropriate to the impacts created by the project. The EUB judges the detail on a project-by-project basis. As a general rule, the EUB expects applications for higher-voltage transmission lines of significant length to be more detailed. In some instances, an environmental impact assessment (EIA) may be required.

- 34) For right-of-way clearing and maintenance, provide a copy of the Conservation and Reclamation Plan, as required by AENV (if applicable).

- 35) Landscape plan—indicate those areas that require screening or landscaping, and the measures to be used.
- 36) Aesthetics—indicate those areas that have been identified as significant viewpoints and describe the measures proposed to minimize the impact of towers and rights-of-way within the view area.
- 37) Tower location—indicate the flexibility available in locating towers to reduce the inconvenience to residents and their day-to-day activities.
- 38) Archaeological and historical impacts—confirm that consultation has taken place with Alberta Community Development. If a historical and/or archaeological impact assessment is required, briefly describe any historical or archaeological sites and parks along the routes, with emphasis on major features close to or traversed by the route.
- 39) For proposed route(s) and possible alternatives that will result in significant environmental impacts:
 - i) Describe the environmental evaluation of the study area, identifying the environmental factors leading to the selection of the proposed route(s).
 - ii) Show the major land-use and resource features (e.g., agriculture, residences, recreation, forestry, fish, wildlife, and visual and sensitive areas) for each route in a table in appropriate units (by kilometre, total number, etc.). Provide supporting written discussion showing the significance of impacts upon each major land-use and resource feature for each route.
 - iii) Present an overall comparison of the environmental impacts and costs associated with the alternative routes and proposed route and identify the environmentally preferred route.
 - iv) Summarize any discussions with municipalities held to ensure compatibility of the proposed facility with various municipal services if a proposed transmission line passes through or immediately adjacent to an urban centre.

5.2.5 Economic Assessment

- 40) Provide an economic assessment for the proposed project, including a cost summary of all alternative routes on a common basis. Where identifiable, include costs to be borne by persons other than the applicant and the applicant's customer(s) in the comparison.

6 Public Notification and Involvement Guidelines

Purpose of the Guidelines

The EUB is providing you with these guidelines and minimum expectations to assist you in carrying out your public notification and involvement program prior to submitting an electric facility application. However, the EUB cannot predetermine the precise extent and scope of your program, because every application is unique and each project may present circumstances that must be dealt with on an individual basis.

The EUB expects you, as the proponent, to assume your responsibilities for involving the public and to be aware of circumstances or applications where your public notification and involvement program should exceed the minimum requirements and recommendations of these guidelines.

These guidelines apply to all new facilities and all modifications to existing facilities. The guidelines are to be used for any applications referred to in this guide.

Electric Facility Development: A Cooperative Venture

The EUB is responsible for the economic, orderly, and efficient development of Alberta's energy and utilities resources in the public interest. When considering electric facility applications, the EUB is obliged to treat all parties fairly. Fairness requires that all parties who are or may be affected by a proposed development are made aware of the application and have an opportunity to voice their concerns and to be heard. An affected party is a person whose rights may be directly and adversely affected.

The EUB recognizes that all developments may affect landowners, residents, and/or people working in the area, as well as local authorities. The EUB considers it paramount that effective communication takes place among industry, government, and the public so that concerns may be raised, properly addressed, and if possible, resolved. All parties should work cooperatively for the development process to be effective.

Before You Submit an Application

The EUB considers your public notification and involvement program to be an extremely important precursor to filing your electric facility application. You are expected to take your public involvement responsibilities and obligations seriously. All of the activities outlined in these guidelines must be carried out before you submit your application.

Your approval may be suspended if your responses to the public notification and involvement questions on your application are subsequently found to be false or inaccurate.

Public Disclosure and Consultation

Failure to adequately consult with the public may have serious consequences. The EUB must consider specific objections and concerns to a proposed development raised by persons whose rights may be directly and adversely affected. In addition, following approval of an application, a person whose rights may be directly and adversely affected may request a hearing and suspension of the approval if a hearing was not held. The EUB

may hold a hearing to consider the application, provided such a request is made within 30 days of the issuance of the approval.

The EUB does not precisely define the scope of your public notification and involvement program; however, it does expect that the level of public involvement will reflect the complexity of the project.

The minimum requirements are described below in these guidelines. However, these requirements must not be viewed as a maximum. Different areas of the province may also influence public expectations for contact and disclosure. Your program needs to address public expectations regarding consultation, as well as issues unique to the area.

You are expected to be proactive and ensure that technical information is conveyed in a manner understandable to the public. Your project should be discussed with the widest possible audience as early in the planning stages as practical.

You must make all reasonable attempts to contact parties, provide a written description of the project, discuss the project, and address any questions and concerns. If you are unable to contact a party, you should provide sufficient documentation to illustrate your attempts to establish contact.

The EUB encourages you to continue public communication throughout the life of the project.

Public Objections and/or Concerns

As a company, you are expected to attempt to address objections and/or concerns raised by members of the public and to reconcile differences where possible. You must indicate any outstanding objections and/or concerns you are aware of. You must attach a written summary of the outstanding issues when submitting an application. In such cases, the EUB will review the circumstances in conjunction with its consideration of the application. If the issues are not resolved, the EUB may hold a hearing to consider the application.

Should dispute arise, the EUB expects the parties to discuss the issues and options for resolution and strongly encourages the use of third-party mediators. EUB staff, if requested, can assist in explaining EUB requirements and processes and in facilitation. Additional information in this regard may be found on the EUB's Web site under the Appropriate Dispute Resolution (ADR) initiative.

Notification and Involvement Responsibilities of the Proponent

In planning your public notification and involvement program, you will need to complete the following prior to submitting an application:

- Identify parties whose rights may be directly and adversely affected in your project area, such as landowners, residents, occupants, grazing leaseholders, trappers, and outfitters.
- Identify and communicate with aboriginal, environmental, and other groups who may be interested in your application.

- Identify special concerns that exist in the area. To achieve this, the EUB recommends that you talk to local residents and other operators and develop an effective communication plan that involves potentially affected parties at an early stage of planning.
- Begin your public notification and involvement program before you finalize transmission line routing or facility location and before you submit your application.
- Provide sufficient information to the public for them to assess the impact of the proposed development. To accomplish this, your program should provide all interested parties with the opportunity to obtain adequate information of the proposal and its possible impacts.
- Provide documented information about your project that is consistent and factual.
- If your proposal is part of a larger project, you should be prepared to discuss the entire project and to explain how your component complements other development in the area. A company representative with full knowledge of the issues and concerns should contact any affected parties to discuss the project. Broader public meetings or open houses and discussions may also be necessary in some cases.
- Should issues arise that you would like the EUB to comment on, you may call the EUB offices. However, you should only do this after you have investigated the situation and discussed your proposal with parties who may be affected.

Minimum Requirements

Section 26 of the Energy Resources Conservation Act requires the EUB to ensure that all potentially adversely affected parties have the opportunity to comprehend the facts of an application and an opportunity to present their case. Therefore, the EUB requires you, as a minimum, to identify all potentially affected parties within a 2000 m radius from power plants and (or) 800 m radius from transmission facilities and to provide them with a company package that contains the following information and any additional data necessary to address any unique features of your proposed application:

- applicant information, including company name, contact person, and phone number;
- full description of the proposed development, including facility location and type;
- a brief description of how the development complements or is part of the existing development in the area; and,
- project scheduling and the proposed date of development initiation and construction.

Depending upon the nature of the application, you must also include relevant information on the following technical issues as applicable:

- a description of the potential impacts that may occur from the proposed development;
- a brief description of the equipment to be installed;

- scope of emissions and control measures;
- noise sources and mitigative measures;
- amount and type of vehicular traffic;
- an example of a similar existing facility, preferably in the area (a tour of a similar facility may be an option to consider where feasible and warranted).

If the location of your proposed facility is in a densely populated area, such as a major urban centre, the 2000 m radius for power plants or the 800 m radius for transmission facilities may cover hundreds of dwellings. In this case, the EUB requires you, as a minimum, to provide the company package described above to only the first line of dwellings in the immediate vicinity of your project, as well as to any other dwellings in the direct line of sight.

References

You should use the following reference when developing your public notification and involvement program:

- *IL 89-4: Public Involvement in the Development of Energy Resources*, which provides guidelines you are expected to use for all new and existing facilities.

